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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,136	10/23/2003	Robert White	00216-645002	9171
26161	7590	12/14/2004	EXAMINER	
FISH & RICHARDSON PC 225 FRANKLIN ST BOSTON, MA 02110			HAMILTON, ISAAC N	
			ART UNIT	PAPER NUMBER
			3724	

DATE MAILED: 12/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/692,136

Applicant(s)

WHITE ET AL. 

Examiner

Isaac N Hamilton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 August 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 17-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “cap” in claim 25, and in the specification on page 9, line 16, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

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2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 17, 18, 20-22, 24-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Erdmann et al (DE3526951A1), hereafter Erdmann. Erdmann discloses a method of making cutting element in figures 1a)-1c); silicon wafer 1; surface 5; acute angle/sharp edge 12; guard element 10; interconnecting elements shown in the background in figure 1c) beyond the cutting element and to the right of the guard 10; three planar cutting elements in figure 1c); cap 3 in figure 1a) is disposed all along the top surface of wafer 1 during etching; intermediate transverse element juxtaposed between the left-most sharp edge 12 in figure 1b) and guard 10; anisotropic wet chemical etching and wet etching are shown in figure 1a) by the KOH.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 19 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Erdmann in view of applicant's admitted prior art (APA). In the applicant's specification on pages 3-4, lines 30-23, respectively, the applicant admits that dry etching and isotropic etching are well known. It would have been obvious to use dry etching in Erdmann as taught by APA in

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order to remove the layers of silicon at a more uniform rate. It would have been obvious to use isotropic etching in Erdmann as taught by APA in order to etch the silicon wafer faster.

### ***Response to Arguments***

Applicant's arguments filed 08/18/2004 have been fully considered but they are not persuasive. Applicant asserts that the drawings do not require correction. It is believed that the "cap" referred to in claim 25 is not the same "cap" described at page 6, lines 23-25, but instead is the "cap" described at page 9, line 16. It is believed that these two elements, which are both labeled "cap", are in fact significantly different. The cap 4 on page 6, lines 23-25, appears to be a part of the housing that holds the cutting element. The "cap" on page 9, line 16 is described as a part of the cutting element. Moreover, the applicant asserts that the cap 4 described at page 6, lines 23-25, is shown in figure 4, however, after careful review of figure 4 the Examiner has determined that not only is there no element labeled "4", there is no element resembling any sort of "cap". It is to be noted that there is an element labeled with a "4" in figure 1, but it is the "cap" element of the housing, and not the "cap" member of the cutting element described at page 9, line 16. Thus, the Examiner upholds his objection to the drawings. Applicant asserts that Erdmann does not disclose a guard element, and asserts that Erdmann refers to element 10 as a "shearing blade edge". The Examiner agrees that Erdmann refers to element 10 as a "shearing blade edge", moreover, Erdmann refers to element 12 as "cutting edges" and refers to element 10 as a "shearing blade edge" because it is the outermost region of the cutting element- just as one would refer to the outermost portion of his/her desk or chair as the "edge of my desk" or "edge of my chair". Therefore, element 10 is not an edge in the same sense as element 12 is an edge

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because element 12 is a line-edge and element 10 is an area-edge. Moreover, Applicant asserts that Erdmann does describe any part of Erdmann as a guard. It is believed that the term "guard" as used in the specification and claims has been bastardized, however, it was not objected to because the applicant is allowed to be his/her own lexicographer. Element 15 in figure 4 does not appear to be a guard for anything, instead, it appears to be a backstop for the cutting blade when it is placed in the housing in figure 1. To the degree that element 15 in figure 4 is a guard, element 10 in Erdmann is a guard because the elements have identical construction. Applicant asserts that element 10 in Erdmann is not "formed by etching" because it has been protected from etching by photoresist 3. It is believed that element 10 is protected by photoresist, however, the photoresist 3 is only applied to the top and bottom of element 10. Figure 1(b) shows element 10 after a major portion of the disk is removed by etching in order to form element 10.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isaac Hamilton whose telephone number is 571-272-4509. The examiner can normally be reached on Monday thru Friday between 8am and 5pm. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Allan Shoap can be reached on 571-272-4514.

In lieu of mailing, it is encouraged that all formal responses be faxed to 703-872-9306.

*nh*

IH  
December 2, 2004

  
BOYER ASHLEY  
PRIMARY EXAMINER